

Mr. John Grantham
State of Washington
Department of Ecology
Nuclear & Mixed Waste Program
P. O. Box 47600
Olympia, WA 98504-7600

FLUOR DANIEL, INC.

Date: June 20, 1994

Reference: Hanford Waste Vitrification Plant
DOE Contract DE-AC06-86RL10838
Fluor Contract 8457

Transmittal No.: WDOE-945

Dear Mr. Grantham:

TRANSMITTAL

We enclosed 2 copy of the items listed below. These are issued per US-DOE request.

☐ Approval ☐ Reference ☐ Review and Comment ☒ DCN-RFC

Response due to Fluor: N/A

Responds to: A160 PACKAGE

| NUMBER | REV | DATE | TITLE |
|------------|-----|---------|---|
| DCN - 0184 | 0 | 6/15/94 | <p>DCN TITLE:</p> <p>REVISION OF ACCEPTABLE VIBRATION OF LIMITS OF PUMPS</p> <p>"RELEASED FOR CONSTRUCTION"</p> |

Reference: FRP-1455, FUP-873

Distribution:

R. L. Long - DOE-RL, w/0

TWP/AME Corresp Cntrl Cntr MSIN A5-10

(A160 PACKAGE), w/o

P. Felise - WHC-RL (MSIN G6-06), w/1

Environmental Data Management Center

(105-105-105), 10/1

D. Duncan - US EPA, Region X, w/O

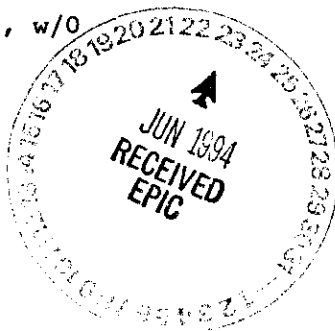
M. D. Talbot, WHC - w/O

Very truly yours,

Nazzy Eshraghi For/

R.S. Poulter
Project Director

RSP:DLG:nre



**FLUOR DANIEL**US DEPARTMENT OF ENERGY
HANFORD WASTE VITRIFICATION PLANT**DESIGN CHANGE NOTICE****DCN - 0184**

REV 0

PAGE 1 OF 5

DCN TITLE
Revision of acceptable vibration
limits of pumps.

DATE INITIATED

25 April 1994

PACKAGE NO.
A160**SECTION 1: DESCRIPTION OF CHANGE**

This DCN revises the acceptable vibration limits of the following pumps:
PX-500-002A/B Firewater Pumps
PX-500-004 Jockey Pump
PX-530-013A/B Effluent Discharge Sump Pumps
PX-530-015 Effluent Discharge Sump Pump
PX-500-016 Effluent Discharge Sump Pump

This change is made per WHC direction.

FOR LIST OF AFFECTED DOCUMENTS, SEE SECTIONS 6 AND 7.

CAUSE OF
CHANGE:

- ☐ Field Change Request
☐ Supplier Disposition
☐ Deficiency Report
☐ Design Development
☐ Change Request
☐ TBD/Hold
☒ Other Title III

Review #

WHC request

RFF-1649

(WHC 9452439)

Initiating Document(s)

SECTION 2: EVALUATION

WAPA DWG/SPEC? ☒ NO ☐ YES
QUALITY LEVEL 1 DWG/SPEC? ☒ NO ☐ YES
SAFETY CLASS 1 OR 2 DWG/SPEC? ☒ NO ☐ YES
SYSTEMS ANALYSES AFFECTED? ☒ NO ☐ YES
MULTI-DISCIPLINE CHANGE? ☒ NO ☐ YES

IF "YES", ADDITIONAL
REVIEW REQUIRED BY:REVIEWER COMMENTS
AND SIGNATURE/DATEDCN Evaluated by: Systems Thompson ADM W. Moore Others _____**SECTION 3: APPROVED FOR CONSTRUCTION**

Donald G. Sabatky 26 APR 94
Originator Date

PJ Bedell by William Moore 4/26/94
Project/Resident Engineer Date

SECTION 4: CONCURRENCE

PJ Bedell 6/3/94
Project Management Date
Homer E. Savage 5-25-94
Systems Date
Jan P. Martin 6-2-94
Independent Safety Date
Jim Martin for EP 5/25/94
Quality Assurance Date
James Stokes 5-25-94
Configuration Management Date

SECTION 5: RELEASED FOR CONSTRUCTIONPE STAMP REQUIRED? ☐ NO ☒ YES

PA Smith 6/8/94
WHC Date
J. B. 6-16-94
UCAT Date
Homer E. Savage 6/15/94
DOE Date

COMMENTS:

**FLUOR DANIEL**US DEPARTMENT OF ENERGY
HANFORD WASTE VITRIFICATION PLANT**DESIGN CHANGE NOTICE**

9513558.0657

DCN - 0184

REV

0

DISCIPLINE

Mech

PKG. NO.

A160

PAGE

2

PREPARED BY: D. G. LaBounty

Date: 25 April 1994

DISCIPLINE ENGINEER: D. G. LaBounty

Date: 25 April 1994

SECTION 6: CONSTRUCTION DOCUMENTS AFFECTED

| DOCUMENT NUMBER | SHT/ PAGE | REV NO | DOCUMENT NAME | INCLD Y/N | DESCRIPTION OF CHANGE |
|------------------------|--------------|-----------|-----------------------------|--------------|--------------------------------------|
| B-595-C-A160- 15145 | 7 | 1 | Sump Pumps | Yes | Revised acceptable vibration limits. |
| B-595-C-A160- 15540 | 9 | 1 | Fire Water System Pumps | Yes | Revised acceptable vibration limits. |
| B-595-C-A160- 15541 | 7 | 1 | Fire Water Unit Heater Pump | Yes | Revised acceptable vibration limits. |

SECTION 7: NON-CONSTRUCTION DOCUMENTS AFFECTED

This section references affected items such as P&IDs or calculations/analyses, but they are generally not included in DCN package.

| DOCUMENT NUMBER | SHT/ PAGE | REV NO | DOCUMENT NAME | DESCRIPTION OF CHANGE |
|--------------------|--------------|-----------|---------------|-----------------------|
|--------------------|--------------|-----------|---------------|-----------------------|

N/A


2.2.4 Vibration

9513358.0658

Delete the second sentence beginning with "Peak-to-peak limits measured ..." including the table following, and replace with:

"The acceptable peak-to-peak vibration limits measured on the bearing housing for anti-friction bearings shall be in accordance with the Hydraulic Institute standards.

For sleeve bearings, the acceptable limits of vibration measured on the shaft at the sleeve bearing shall be 3 mils maximum."


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|---|--|--|--|--|--|
|  FLUOR DANIEL | | U.S. DEPARTMENT OF ENERGY HANFORD WASTE VITRIFICATION PLANT | | DESIGN CHANGE NOTICE | |
| DESCRIPTION OF CHANGE Revision of acceptable vibration limits for pumps. | | | | BASE DOC. NO. B-595-C-A160-15145 SHT/PG. 7 REV. 1 | |
| | | | | DISCIPLINE: Mechanical | |
| | | | | PREPARED BY: D. G. LaBounty DATE: 25Apr94 | |
| DISCIPLINE ENGINEER: D. G. LaBounty DATE: 25Apr94 | | | | DCN - 0184 REV 0 PAGE 3 | |

2.2.5 Vibration

9513358.0659

Delete the third sentence beginning with "Peak-to-peak limits ..." including the table following, and replace with:

"The acceptable peak-to-peak vibration limits measured on the bearing housing for anti-friction bearings shall be in accordance with Hydraulic Institute standards."


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|---|--|--|--|---|------------------|
|  FLUOR DANIEL | | U.S. DEPARTMENT OF ENERGY HANFORD WASTE VITRIFICATION PLANT | | DESIGN CHANGE NOTICE | |
| DESCRIPTION OF CHANGE Revision of acceptable vibration limits for pumps. | | | | BASE DOC. NO. B-595-C-A160- 15540 | |
| | | | | SHT/PG. 9 REV. 1 | |
| | | | | DISCIPLINE: Mechanical | |
| PREPARED BY: D. G. LaBounty | | DATE: 25Apr94 | | DCN - 0184 | REV 0 |
| DISCIPLINE ENGINEER: D. G. LaBounty | | DATE: 25Apr94 | | | |
| | | | | | PAGE 4 |

2.2.5 Vibration

9515358.0660

Delete the third sentence beginning with "Peak-to-peak limits ..." including the table following, and replace with:

"The acceptable peak-to-peak vibration limits measured on the bearing housing for anti-friction bearings shall be in accordance with the Hydraulic Institute standards."

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|---|--|--|--|----------------------------------|----------|-----------|
|  FLUOR DANIEL | | U.S. DEPARTMENT OF ENERGY HANFORD WASTE VITRIFICATION PLANT | | DESIGN CHANGE NOTICE | | |
| DESCRIPTION OF CHANGE Revision of acceptable vibration limits for pumps. | | | | BASE DOC. NO. B-595-C-A160-15541 | | |
| | | | | SHT/PG. 7 REV. 1 | | |
| | | | | DISCIPLINE: Mechanical | | |
| PREPARED BY: D. G. LaBounty | | DATE: 25Apr94 | | DCN - 0184 | REV 0 | PAGE 5 |
| DISCIPLINE ENGINEER: D. G. LaBounty | | DATE: 25Apr94 | | | | |